

PERSONAL INFORMATION



Mauro Fasano, Ph.D.

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Sex Male | Date of birth 27/09/1965 | Nationality Italian

WORK EXPERIENCE

2020 - now

Full Professor of Biochemistry

University of Insubria

- Research interests are set in continuity with the previous activity, with a special focus on biochemistry of metabolic stress pathways in neurodegenerative diseases, including Parkinson's disease and amyotrophic lateral sclerosis. He is also active in research valorisation, in particular in STEM and life science fields.

2000 - 2020

Associate Professor of Biochemistry

University of Insubria

- Research interests are mainly devoted to two large areas: i) characterization of the allosteric properties of human serum albumin and ii) biochemistry of metabolic stress pathways in neurodegenerative diseases. The latter aspect, being the predominant one, is in turn focused on two main objectives: a) to understand molecular mechanisms leading to neurodegeneration to eventually block them by neuroprotective drugs, and b) to discover and validate peripheral markers of the disease to allow early and differential diagnosis so that neuroprotective or neurorestorative strategies could be attempted. Both objectives are mainly pursued by means of proteomics techniques, where a first look by a global, hypothesis-free approach is followed by a bioinformatics screening of functional information available in the literature by means of network-based methods to end up in the generation of a new hypothesis to be confirmed experimentally by classical, hypothesis driven methodologies.

1992 - 2000

Assistant Professor of General Chemistry

University of Torino

- Characterization of metal ion centers in biomolecules by NMR spectroscopy.
- Solid-state structure of different melanin pigments including human mesencephalic melanin.
- NMR relaxometric properties of heme proteins.

EDUCATION AND TRAINING

1990 - 1992

Ph.D. in Chemical Sciences

EQF level 8

University of Torino

- NMR characterization of biomolecules and their interactions with metal ions and complexes.

1984 - 1989

MS in Chemistry (summa cum laude)

EQF level 7

University of Torino

- Solid-state NMR characterization of melanins.

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C2
German	B1	B2	B1	B1	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- Good communication skills gained through lecturing activity and scientific communication to international and national conference, as well as lay communication to the public. More recently, public speaking training for pitching in front of a Jury or a Panel of investors.

Organisational / managerial skills

- Group Leader since 2000. Currently leader of a research team of three undergraduates, two MS student, one PhD students and two post-docs. He has been member of scientific committees of several national and international conferences
- Deputy Chancellor for Innovation and Technology Transfer since 2019.
- Member of the Board of Administration of Fondazione ItPA ONLUS (a Charity Foundation) since 2017.
- Co-founder and CSO of Parkintest, a start-up project selected and admitted to Open Accelerator by Zcube. Parkintest was awarded the Deloitte prize for the best accelerating startup (2018)
- Preparation of a Business Plan and a professional pitch deck.
- Co-ordinator of the Contamination Lab of the University of Insubria.
- Chair of the Innovation Camp of Insubria's Ph.D. students.
- Good knowledge of Intellectual Property Rights.

Job-related skills

- See additional information.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Independent user	Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- good command of office suite (word processor, spread sheet, presentation software)
- good command of photo editing software gained as an amateur photographer
- good command of programming environments (fortran, basic, R)
- good command of molecular graphics tools (sPDBv, chimera, PyMol)
- good command of network analysis tools (Cytoscape)
- basic command of patent analysis software (Orbit Intelligence)

Other skills

- cooking (author of "La Padella di Maillard", 2012, ISBN:9788891018991)
- wine tasting licence
- photography (digital and analogic)

Driving licence B

ADDITIONAL INFORMATION

Courses taught

Biochemistry (BSc in Chemistry)
 Advanced Biochemistry (MS in Chemistry)
 Bioinformatics (BSc in Biology)
 Systems Biology (MS in Biomedical Sciences)
 Biochemical methods (MS in Environmental Sciences)

Memberships

Mauro Fasano has been the past-president of the biological chemistry division of the Italian Chemical Society (2009-2011), member of the scientific board of the proteome chemistry group of the Italian Chemical Society (2006-2011), deputy-director of the Department of Structural and Functional Biology of the University of Insubria (2003-2011), coordinator of the biotechnology group of the Italian Chemical Society (2011-2013), deputy-director (2009-2013) and director (2014-2016) of the Center of NeuroScience of the University of Insubria, member of the scientific advisory board of the Italian Proteome Association (2010-2012 and 2013-2015). Moreover, he is member of the Italian League against Parkinson's Disease, of the Italian NMR Discussion Group, of the Human Proteome Organization and of the Italian Society of Biochemistry and Molecular Biology.

Projects

1997-98: local unit coordinator, CNR target project on Biotechnologies.
 1998-08: coordinator of the biochemistry and proteomics unit at the Bioindustry Park Canavese, Colleretto Giacosa (Torino).
 2002-04: principal investigator in the project "DAOS - danno ossidativo nella malattia di Parkinson" funded by Fondazione Monzino, Milano. Objective: To understand molecular mechanisms of Parkinson's disease using a cell model of dopamine toxicity.
 2004-05: principal investigator in the project "Metabolic changes in the neurodegenerative process at the basis of Parkinson's disease" funded by the ministry of Health. Objective: To understand molecular mechanisms of Parkinson's disease pathogenesis by differential proteomic analysis of mesencephalic tissue specimens from Parkinson's disease patients.
 2006: principal investigator of the project "SIMBA - Silicon Innovative Monitors for Biological Applications" supported by EU (Interreg IIIc) and Regione Lombardia. Specific aim: to develop new technological platforms for low cost and high performance analysis of antibody arrays for peripheral biomarkers quantification.
 2008-12: team leader in the identification of biomarkers of Parkinson's disease in peripheral blood cells. Supported by the Italian Parkinson's association.
 2010-12: industrial research project ParlS (Parkinson Informative Systems) funded by Regione Autonoma Valle d'Aosta through collaborative project agreement with BioDigitalValley Srl for the development of a software for automatic detection of biomarkers of Parkinson's disease in plasma.
 2011-13: team leader in the project "A cellular model for mitochondrial impairment in Parkinson's disease" funded by the Italian Ministry of University and Research.
 2014-now: Scientific coordinator of the worldwide mitochondrial action in the Human Proteome Project – Biology and Disease.
 2016-2018: team leader in the project "Clinical validation of a predictive panel of T-cell protein biomarkers for Parkinson's disease diagnosis" funded by the Charity "Fondazione Rossi di Montelera" in collaboration with the University of Torino, Department of Neuroscience "Rita Levi Montalcini".
 2017-2020: local unit coordinator of the Italian University ministry project 201534HNXC_003 "The role of tandem repeats in neurodegenerative diseases: a genomic and proteomic approach".
 2018-2020: local unit coordinator of the Interreg Swiss-Italian project LEUCITI.
 2020:2023: local unit coordinator of the Italian University ministry project 20203P8C3X_005 "Unveiling the hidden side of NEUROdevelopmental Disorder Genetics (NEUDIG): a multidisciplinary pathway to new molecular diagnoses by integrating genomic, transcriptomic, and functional analyses".

Patents

ITMI952020. Complessi paramagnetici come agenti di contrasto nell'imaging funzionale. Inventors: Silvio Aime, Mauro Fasano.
 ITRM20010239. Derivati di composti guanidinici, loro usi in campo medico e procedimento di preparazione. Inventors: Rodolfo Federico, Paolo Ascenzi, Maria Marino, Giorgio Venturini, Mauro Fasano.
 WO2013/098786. Method for the in vitro diagnosis of Parkinson's disease. Inventors: Tiziana Alberio, Mauro Fasano, Leonardo Lopiano.
 IT10202000006400. Saggio rapido per la diagnosi in vitro di infezione da SARS-CoV-2 in un fluido biologico. Inventors: Tiziana Alberio, Lorenzo Azzi, Andreina Baj, Mauro Fasano, Marta Lualdi.

Citations

Author of 185 papers on peer-reviewed international journals (ISI Web of Knowledge and Scopus), as well as books, edited books, e-books, articles in encyclopedias. He received about 9000 citations, with h-index = 41 (Sources: ISI Web of Knowledge and Scopus).

References

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Publications

1. Turilli-Ghisolfi ES, Lualdi M, Fasano M. Ligand-Based Regulation of Dynamics and Reactivity of Hemoproteins. *Biomolecules*. 2023 Apr 17;13(4):683. doi: 10.3390/biom13040683. PMID: 37189430; PMCID: PMC10135655.
2. Fasano M, Alberio T. Neurodegenerative disorders: From clinicopathology convergence to systems biology divergence. *Handb Clin Neurol*. 2023;192:73-86. doi: 10.1016/B978-0-323-85538-9.00007-9. PMID: 36796949.
3. Shallak M, Alberio T, Fasano M, Monti M, Iacobucci I, Ladet J, Mortreux F, Accolla RS, Forlani G. The endogenous HBZ interactome in ATL leukemic cells reveals an unprecedented complexity of host interacting partners involved in RNA splicing. *Front Immunol*. 2022 Aug 1;13:939863. doi: 10.3389/fimmu.2022.939863. PMID: 35979358; PMCID: PMC9376625.
4. Turilli ES, Lualdi M, Fasano M. Looking at COVID-19 from a Systems Biology Perspective. *Biomolecules*. 2022 Jan 22;12(2):188. doi: 10.3390/biom12020188. PMID: 35204689; PMCID: PMC8961533.
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6. Lualdi M, Fasano M. Features Selection and Extraction in Statistical Analysis of Proteomics Datasets. *Methods Mol Biol*. 2021;2361:143-159. doi: 10.1007/978-1-0716-1641-3_9. PMID: 34236660.
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According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Como, 30th June, 2023

A handwritten signature in blue ink that reads "Mauro Fasano".